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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,078	09/25/2003	Robert Parlee	parlee01.005	5824
25247	7590	04/01/2009	EXAMINER	
GORDON E NELSON PATENT ATTORNEY, PC 57 CENTRAL ST PO BOX 782 ROWLEY, MA 01969				WOLLSCHLAGER, JEFFREY MICHAEL
ART UNIT		PAPER NUMBER		
1791				
			NOTIFICATION DATE	DELIVERY MODE
			04/01/2009	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[genelson@northshorepatents.com](mailto:genelson@northshorepatents.com)

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/671,078	PARLEE, ROBERT	
	<b>Examiner</b>	<b>Art Unit</b>	
	JEFFREY WOLLSCHLAGER	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 15 January 2009.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 20,23,25 and 27-32 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 25, 27-29 and 32 is/are rejected.  
 7) Claim(s) 20,23,30 and 31 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Response to Amendment***

Applicant's amendment to the claims filed January 15, 2009 has been entered. Claims 20, 25, and 27-30 are currently amended. Claims 1-19, 21, 22, 24 and 26 have been canceled. Claim 32 is new. Claims 20, 23, 25, and 27-32 are pending and under examination.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 25, 29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pai (US 5,318,819) in view of Trimble (US 4,986,949) and Bezin et al. (US 5,181,732) and Hwang et al. (US 5,368,804).

Regarding claims 25 and 32, Pai teaches a method of joining composite pipes/tubes (col. 2, lines 59-65) to form a lug for a joint in a bicycle frame (Abstract). In the method, Pai makes a layup for the lug by wrapping an outer covering (40) of fiber material (col. 2, lines 55-57) around the joint portion and a foamable material (41) is disposed between the outer covering (40) and the tube/pipe joint (Figure 2; col. 2, lines 16-37). The combined materials are placed in a mold (90) and hot-pressed such that the foamable material applies a force against the tube so that the tubes can be solidly coupled together. Pai does not expressly recite a mold having surfaces that fit with each other and with the tubes when the mold is closed such that the joint, expandable element and the layup are completely contained within the closed cavity.

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Additionally, Pai does not expressly recite the tubes are carbon fiber tubes or that the layup employs matrix impregnated carbon fibers.

However, Trimble teaches a method for producing a bicycle wherein a mold having surfaces that fit with each other and with the tubes when the mold is closed such that the joint, expandable element and the layup are completely contained within the closed cavity (col. 19, line 37 – col. 20, line 2; Figures 2A and 2B). Additionally, Bezin et al. teach a method of forming a composite bicycle fork wherein an impregnated sheath of fibers (25) (col. 5, lines 40-48), such as carbon fibers (col. 7, lines 42-44), are analogously employed and Hwang et al. teach a method of molding a composite bicycle frame that employs dilatable materials (Abstract) wherein composite tubes and layup layers made of resin-impregnated carbon fibers are disclosed as being conventional (col. 1, lines 6-22 and 53-57).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Pai and to have employed a mold configuration wherein a mold having surfaces that fit with each other and with the tubes when the mold is closed such that the joint, expandable element and the layup are completely contained within the closed cavity, as suggested by Trimble, for the purpose of reducing flash formation and for the purpose of employing an art recognized mold configuration to produce a hot-pressed/molded bicycle component. Further, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed carbon fiber tubes and a layup that employs matrix impregnated carbon fibers in the method of Pai, as suggested by Bezin et al. and Hwang et al., for the purpose of employing art recognized suitable bicycle forming fiber materials (MPEP 2144.06-2144.07).

As to claim 29, Pai discloses foam that applies force against the tubes (i.e. greater expansion rate), but does not disclose the foam is syntactic foam. However, Bezin et al.

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disclose that syntactic foam is initially flexible so that it can be brought into a desired curve shape when producing bicycle components (col. 5, lines 7-12).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Pai and to have employed syntactic foam, as suggested by Bezin et al., for the purpose, as suggested by Bezin et al., of facilitating shaping at the joint.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pai (US 5,318,819) in view of Trimble (US 4,986,949) and Bezin et al. (US 5,181,732) and Hwang et al. (US 5,368,804), as applied to claims 25, 29 and 32 above, and further in view of Calfee (US 5,116,071).

As to claim 27, the combination teaches the method of claim 25 as set forth above. Pai does not teach the distance between the inner surface of the mold and a tube being joined decreases as the distance from the joint increases thereby forming a tapered lug.

However, Calfee teaches a method of forming a bicycle frame wherein mold sections are conically shaped such that the largest diameter is at the end where the tubes come together (i.e. the joint) (Figures 3A-3D; Figure 4; col. 4, lines 51-54).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Pai and to have employed a conically shaped mold, as suggested by Calfee, for the purpose, as suggested by Calfee, of providing additional strength to the frame and reducing flash to be trimmed (col. 2, lines 50-62).

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pai (US 5,318,819) in view of Trimble (US 4,986,949) and Bezin et al. (US 5,181,732) and Hwang et al.

(US 5,368,804), as applied to claims 25, 29 and 32 above, and further in view of Baron (US 4,954,209)

As to claim 28, the combination teaches the method of claim 25 as set forth above. Pai does not teach including an expandable element by lining the mold with silicone.

However, Baron teaches a method and apparatus for producing molded articles (Abstract) wherein compaction pressure is achieved by lining a mold with a silicone material and causing the material to expand to apply a compaction pressure to the lay-up (col. 3, lines 40-50).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Pai and to have employed a mold lined with silicone, as suggested by Baron, for the purpose of efficiently providing compaction pressure to force components of the lay-up into firm contact with each other.

#### ***Allowable Subject Matter***

As set forth in previous office actions, claims 20, 23, 30 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed January 15, 2009 have been fully considered, but are moot in view of the new grounds of rejection necessitated by the amendment to the claims.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. W./  
Examiner, Art Unit 1791

March 30, 2009

/Monica A Huson/  
Primary Examiner, Art Unit 1791